

Work Order ID 142339

March 07, 2016 1:52:19 PM

142339

Page 1

Item ID: D5039-5 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Half Link
 Start Date: 3/7/2016 Start Qty: 40.00 ***40*** Cust Item ID:
 Required Date: 3/11/2016 Req'd Qty: 40.00 ***40*** Customer:
 Reference:

Approvals: Process Plan: SLA Date: 20160307 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D5039	B								

100 0.00 ***100*** 40 MAR 07 2016 **DAS 13 9-89**

Purchasing Memo 0.00
 Purchasing Issue P/O: 31627
 Description: Master Link
 Supplier: MC MASTER CARR
 Supplier P/N: 6264K72
 Material release note is required.

110 Receive & Inspect for Damage & Mat'l Certs 0.00

110 Memo 0.01
 Packaging
 Packaging

40x 8p/6 -03-9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due	☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ OTHER :		☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes		☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center		☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence	

Work Order ID 142339

March 07, 2016 1:52:19 PM

142339

Page 2

Item ID: D5039-5

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Half Link

Stop

NS2

Start Date: 3/7/2016 Start Qty: 40.00

40

Cust Item ID:

Required Date: 3/11/2016 Req'd Qty: 40.00

40

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

DAS
38
9-89

MAR 10 2016

130

Identify as per dwg & Stock Location: *5/4d*

0.00

130

Packaging

Memo

0.01

Packaging

40 DAS
6
9-89

MAR 11 2016

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.07

Quality Control

16/1/14

MAR 11 2016

MW

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY					
Environment ☐		No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐		Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐		Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐		Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐		Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐		Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐		Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐		Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐		Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐		Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐		Manufacturing Process ☐	OTHER : _____					
Misidentified ☐		Past Due ☐						

Picklist Print

March 07, 2016 1:52:24 PM

Page 1

Work Order ID: 142339

142339

Parent Item: D5039-5

D5039-5

Parent Item Name: Half Link

Start Date: 3/7/2016

Required Date: 3/11/2016

Start Qty: 40.00

Required Qty: 40.00

Comments: IPP REV:A 15.09.23 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

6264K72

Purchased

No

Each

0.0000

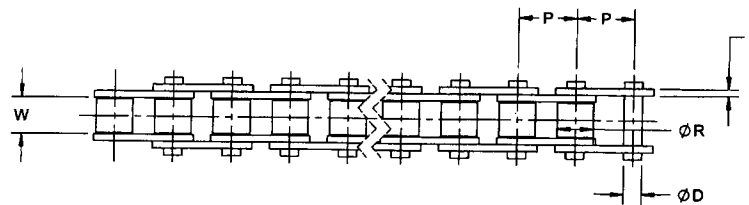
40

6264K72

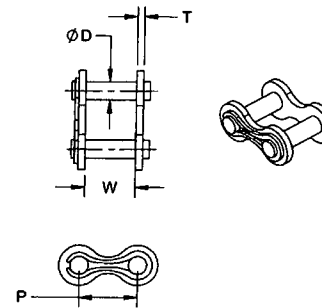
Half Link

40x SP/6-03-9.

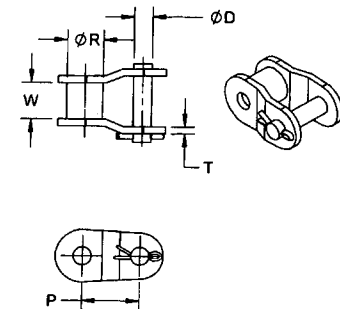
SPECIFICATION CONTROL DRAWING



D5039-1 CHAIN



D5039-3 MASTER LINK



D5039-5 HALF LINK

DART P/N	DESCRIPTION	MATERIAL	WEIGHT (LB/FT)	MANUFACTURER	MANUFACTURER P/N	VENDOR	VENDOR P/N	ALTERNATE VENDOR	ALTERNATE VENDOR P/N	P	W	T	D	R
D5039-1	CHAIN	304 SS	0.43	TSUBAKI	A140004	ACKLANDS GRAINGER	6L076	MCMaster CARR	6264K85	0.50	0.31	0.06	0.16	0.31
D5039-3	MASTER LINK	304 SS	0.43	TSUBAKI	RS40-SS-1	ACKLANDS GRAINGER	6L094	MCMaster CARR	6264K52	0.50	0.43	0.06	0.16	N/A
D5039-5	HALF LINK	304 SS	0.43	-	-	-	-	MCMaster CARR	6264K72	0.50	0.31	0.06	0.16	0.31

D5039-X CHAIN

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.7
- 7) WEIGHT: SEE TABLE

B	ADD ALTERNATE VENDOR: ZN B3-1, ADD -5; ZNB8-1, C2-1	VS	15.03.04
A	NEW ISSUE	AK	14.01.15
REV.	DESCRIPTION	BY	DATE
DESIGN	AK	DART AEROSPACE USA, INC.	
DRAWN	VS	KENT, WA	
CHECKED	AK	DRAWING NO.	REV. B
MFG. APPR.	JLM	D5039	SHEET 1 OF 1
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	CHAIN	NTS
DATE	15.03.04	COPYRIGHT © 2014 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

RELEASED
2015-09-21
EEN 15-556

24 142 339

201607
20160307

APPROVED



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO31627**

Purchase Order Date 3/7/2016

PO Print Date 3/8/2016

Page Number 1 of 6

Order From :

VU-MCM001

Ship To : DART AEROSPACE LTD

MCMaster-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 330 995 5500

Ship To Contact

Ship To Phone

Ship Via: Purolator ground ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 10

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	6264K72 AS PER DWG D5039 REV. B B142339	Half Link	3/9/2016 Yes 3/9/2016	FN	40.00 Each	\$7.80	\$312.00
Line Total:							\$312.00
2	6264k85 AS PER DWG D5039 REV. B B142344	Chain	3/9/2016 Yes 3/9/2016		50.00 Each	\$14.98	\$749.20
Line Total:							\$749.20
3	71500-11	5914A3 DEAD BLOW HAMMER	3/9/2016 Yes 3/9/2016		2.00 Each	\$24.15	\$48.29

Note:

3/8/2016

J Aurora Industrial Pkwy
 Aurora OH 44202-8087
 0-995-5500
 j.sales@mcmaster.com

Dart Aerospace Ltd
 1270 Aberdeen St
 Hawkesbury ON K6A 1K7
 Canada

Purchase Order
PO31627

Order Placed By
Chantal Lavoie

McMaster-Carr Number
8067156-01

		Ordered	Shipped
Part Number	Product		
6264K72	ANSI #40-Stainless Steel Add-and-Connect Link for 304 Stainless Steel, Highly Corrosion-Resistant Roller Chain	40 Each	40
6264K85	Highly Corrosion-Resistant Roller Chain, 304 Stainless Steel, ANSI #40-Stainless Steel, 1/2" Pitch, 50' LG	1 Each	1
5914A3	Hard Nylon Replaceable-Face Hammer, 1-1/2 lb Overall Weight, 1-3/4" Face Diameter, 12" L Overall	2 Each	2
5914A8	1-3/4" Diameter Replacement Face for, Hard Nylon Replaceable-Face Hammer	2 Each	2
34155A12	Starrett Center-Marking Punch, Round Handle, 5/64" Point Diameter, 4" Overall Length	1 Each	1
34155A13	Starrett Center-Marking Punch, Round Handle, 3/32" Point Diameter, 4" Overall Length	1 Each	1
3069A54	Heat-Resistant Cobalt Steel Jobbers Drill Bit, Size D, 4" Overall LG, 2.4" Drill DP, 135 Degree Point	30 Each	30
91732A734	18-8 Stainless Steel Standard Helical Insert, 1/4"-20 Internal Thread, 0.500" Length, MS122161, Packs of 10	2 Packs	2
91732A213	18-8 Stainless Steel Standard Helical Insert, 5/16"-18 Internal Thread, .469" Length, MS122122, Packs of 10	2 Packs	2
91732A214	18-8 Stainless Steel Standard Helical Insert, 3/8"-16 Internal Thread, .562" Length, MS122123, Packs of 10	2 Packs	2
91732A216	18-8 Stainless Steel Standard Helical Insert, 1/2"-13 Internal Thread, .75" Length, MS122125, Packs of 5	2 Packs	2
94105A617	Nonmarring Flat Point Socket Set Screw, Alloy Steel, 3/8"-24 Thread, 3/8" Long, Packs of 50	1 Pack	1
5503A22	Ball-Point L-Key, 3/16" Hex, 4-1/2" Blade Length	2 Each	2
63745T94	Garden Hose End Cap, with Chain	2 Each	2
9806K321	Miniature Nylon Suction Strainer, 1/2 NPT Male, 8 Mesh	2 Each	2
4591K12	Commercial Grade Pipe Thread Sealant Tape, 16 yd L X 1/2" W, .0028" Thickness, 0.5 G/CC Density	12 Rolls	12